71/726

EIC2100 COMMERCIAL DATABASE SEARCH REQUEST

☑ **FOCUS SEARCH ONLY**
☑ RUSH - SPE signature required: _[signature]_

Staff Use Only
Access DB# 80208

Business Methods Case: 705/ ___36___ ___762___

Log Number 71726

Write in 705 subclass(es) to search required files for 705 cases or cases cross referenced in 705.

Requester's Full Name: ELAINE GORT   Examiner #: 77459   Date: _____

Art Unit: 3627   Phone Number 308-6391   Serial Number: 7/426956

Bldg & Room #: CPKZ-5A06   Results Format Preferred: PAPER ☒   DISK ☐   E-MAIL ☐

If more than one search is submitted, please prioritize searches in order of need.

Provide the (PALM Bib) page or the following: → See attached

Title of Invention: _____

Inventors (provide full names): _____

Earliest Priority Filing Date: __10/26/99__

Requested attachments:
- If possible, provide the cover sheet, the IDS, examples, or relevant citations, authors, etc, if known.
- Please attach copies of the parts of this case that help explain or are <u>most pertinent to this search.</u> Examples are: (abstract) background, summary, (claim(s) [not all of the claims].

The claimed or apparent novelty of the invention is: → See attached. See particularly claims:

Novelty is ~ creating a portfolio index based on individual portfolio data, asset class data, portfolio tracking data.

308, 639

This search should focus on:
(Also include keywords or synonyms)

Search focus on ~ reference that shows ^ analysis 11-15-2002 A08: Stock + bond funds
portfolio prices, corresponding dates, CUSIP number, SIC code, 11-25-2002 A08:19
"Lipper Mutual Fund Industry Average" performance level and "MORNINGSTAR
RATING SYSTEM" which produce some kind of index
for comparison.

→ Focus search: Info on any Solomon Brothers Bond Index
See Pgs 8 + 24 attached - Thanks EJ

<u>Special Instructions or Other Comments</u>

SIMILAR TO   WEBS - World Equity Benchmark
ALSO General info on how WEBS is   Shares sold on NY Stock Exch

---

STAFF USE ONLY

Searcher: Bode Akintola
Searcher Phone #: 308-6150
Searcher Location: PLS 8A01
Date Searcher Picked Up: _____
Date Completed: _____
Searcher Prep & Review Time: 20 min
Clerical Prep Time: _____
Online Time: 30 m

Type of Search
NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable
STN _____
Dialog $178
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet ✓
Other (specify) _____

PTO-1590 (8-01)

COMPLETE 705 TEMPLATE SEARCH REQUESTED RUSH!

EIC2100 COMMERCIAL DATABASE SEARCH REQUEST

71726

FOCUS SEARCH ONLY

☑ RUSH - SPE signature required: _____

Access DB# 80208

Business Methods Case: 705/ ___36___ ___7B21___

Log Number 71726

Write in 705 subclass(es) to search required files for 705 cases or cases cross referenced in 705.

Requester's Full Name: __ELAINE GORT__   Examiner #: __77459__   Date: _____

Art Unit: __3627__   Phone Number __308-6391__   Serial Number: __9/426956__

Bldg & Room #: __CPK2-5A06__

Results Format Preferred: PAPER ☒   DISK ☐   E-MAIL ☐

If more than one search is submitted, please prioritize searches in order of need.

Provide the (PALM Bib) page or the following: → See attached

Title of Invention: _____

Inventors (provide full names): _____

Earliest Priority Filing Date: __10/26/99__

Requested attachments:
- If possible, provide the cover sheet, the IDS, examples, or relevant citations, authors, etc, if known.
- Please attach copies of the parts of this case that help explain or are <u>most pertinent to this search.</u> Examples are: (abstract), background, summary, (claim(s)) [<u>not</u> all of the claims].

→ See attached. See particularly claims:

The claimed or apparent novelty of the invention is:

Novelty is ~ creating a portfolio index based on individual portfolio data, asset class data, portfolio tracking data.

This search should focus on:
(Also include keywords or synonyms)

Search focus on ~ Find a reference that shows ~ analy 11-15-2002 A08: stock + bond funds
07-25-2002 A08:19 portfolio prices, corresponding dates, CUSIP number, SIC code, "Lipper Mutual Fund Industry Average" performance level and "MORNINGSTAR RATING SYSTEM" which produce some kind of index for comparison.

→ focus search: Info on any Solomon Brothers Bond Index

See Pgs 8 + 24 attached - Thanks EJ

<u>Special Instructions or Other Comments</u>

SIMILAR TO WEBS - World Equity Benchmark

ALSO General info on how WEBS is   Shares sold on NY Stock Exch

308, 6391

Salomon Brothers

Thomas S. Nadbielny, CFA
(212) 783-6652
Michael Sullivan, CPA
(212) 783-6726
Marc De Luise
(212) 783-6032
Marie Nugent
Harrison Silver
Armando Lacayo

Introducing the Salomon Brothers World Equity Index

Equity Index Group Publications

1993 Global Markets Review, Thomas Nadbielny, et al., Salomon Brothers Inc, February 1994.

1992 Global Markets Review, Thomas Nadbielny, et al., Salomon Brothers Inc, April 1993.

Global Synthetic Equity: Comparing the Benchmarks, Thomas Nadbielny, Salomon Brothers Inc, December 1991.

Foreign Withholding Taxes — A Primer for Equity Portfolio Investors, Kumar Doraiswami, Thomas S. Nadbielny, CFA, and Nicole R. Tanguy, Salomon Brothers Inc, December 1990.

Pension Sponsors' Review (Quarterly).

Salomon Brothers World Equity Indexes (Monthly).

Other Salomon Brothers Index-Related Publications

Introducing the Salomon Brothers New Large Pension Fund Baseline Bond Index,[SM] Gregory Curran and Carol Sabia, Salomon Brothers Inc, May 1994.

Introducing the New Salomon Brothers Eurodollar Bond Index, Rosario Benavides, et al., Salomon Brothers Inc, January 1994.

Sources of Index Data, Global Index Group, Salomon Brothers Inc, January 1994.

Announcing a New Standard for Exchange Rates Used in Index Calculations, Carol Sabia and Michael Sullivan, Salomon Brothers Inc, December 1993.

Expanded Industry Sectors, Gregory D. Curran, Salomon Brothers Inc, December 1993.

The Salomon Brothers Convertible Securities Index, Anand S. Iyer, CFA, Peter Nakkash and Harrison Silver, Salomon Brothers Inc, November 1993.

Salomon Brothers World Money Market Index: Definition and Methodology, et al., Sivan Mahadevan, Carol Sabia and Theresa Veres, Salomon Brothers Inc, May 1993.

Introducing Austria: An Addition to the Salomon Brothers World Government Bond Index,[SM] Carol Sabia, Salomon Brothers Inc, March 1993.

Brady Bond Index Update, Vincent J. Palermo and Costas C. Hamakiotes, Salomon Brothers Inc, January 1993.

Salomon Brothers World Government Bond Index: Expansion and Redefinition, et al., Thomas E. Klaffky, et al., Salomon Brothers Inc, July 1992.

The Salomon Brothers Brady Bond Index: Impact of Recent Events and Return Prospects, Costas C. Hamakiotes, Salomon Brothers Inc, March 1992.

Introducing the Salomon Brothers Brady Bond Index: A Performance Benchmark for Developing Country Bonds, Thomas E. Klaffky, et al., Salomon Brothers Inc, September 1991.
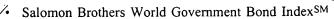
Fourth-generation stock market indexes represent a refinement over third-generation stock market indexes. In addition to eliminating bias caused by issue selection by including **all** issues from the target univers fourth-generation indexes weight issues according to the proportion of th shares that are realistically **ownable** in the marketplace — that is, issue: are **float capitalization weighted** rather than simply **total capitalization weighted**. Relative to a fourth-generation index, investors are not measured against shares that they realistically cannot own. Thus, fourth-generation indexes take the concept of measuring the market portfolio one step further; they measure the **available market portfolio** (for a further discussion, see "Total versus Available Share Capital," page 4).

Figure 6 highlights some of the general differences, according to the "Characteristics of a Good Benchmark" section of this report, between the four generations of stock market indexes.

Figure 6. Generational Index Characteristic Rating

Characteristics	First Generation	Second Generation	Third Generation	Fourth Generaton
Relevance	Good	Very Good	Very Good	Excellent
Comprehensiveness	Poor	Good	Very Good	Excellent
Replicability	Good	Excellent	Very Good	Very Good
Stability	Excellent	Excellent	Excellent	Excellent
Barriers to Entry	Excellent	Excellent	Very Good	Excellent
Other Expenses	Good	Excellent	Good	Good
Selection Criteria	Poor	Good	Excellent	Excellent

THE SALOMON BROTHERS FAMILY OF INDEXES

Dramatic growth in cross-border flows of investment capital has increased the need for accurate and timely financial data on the scope, size, characteristics, and performance of the world's financial markets. To meet this need Salomon Brothers compiles a family of financial market indexes that incorporates a consistent philosophy and construction methodology. Wherever possible, the Salomon Brothers Indexes utilize consistent pricing and foreign exchange rates. Practitioners using the Salomon Brothers indexes to directly compare country and regional performances of different asset classes and subcategories know that the only difference in the relative performance of different markets and asset classes is due to the markets and asset classes themselves and not to different construction methodologies of the indexes being compared. The Salomon Brothers World Equity Index is one index in a family of benchmarks that includes:

- Salomon Brothers World Government Bond Index^{SM}
- Salomon Brothers Broad Investment-Grade Bond Index^{TM}
- Salomon Brothers High-Yield Market Indexes
- Salomon Brothers Brady Bond Index
- Salomon Brothers Eurodollar Bond Index^{SM}
- Salomon Brothers Large Pension Fund Baseline Bond Index^{TM}
- Salomon Brothers World Money Market Index^{SM}
- Salomon Brothers "Convertible" Securities Index
- Salomon Brothers Core ⊕ 5 Index^{SM}
- Salomon Brothers Core ⊕ 3 Index^{SM}
- Salomon Brothers Targeted Index Matrix^{SM}
- Salomon Brothers World Equity GDP-Weighted Index

Examiner Elaine:

Please find attached your search on Salomon brothers bond indexes.

Please let me know if you like for me to try a refocused search with a different strategy or additional terms.

Bode Akintola

Please take a few minutes to fill the attached Green feedback form to the EIC.

```
Set       Items     Description
S1         1308     SALOMON
S2       145202     INDEX? OR INDICES
S3           13     S2(2S)S1
S4            3     S3(S)BOND? ?
?show files
File 349:PCT FULLTEXT 1979-2002/UB=20021114,UT=20021107
         (c) 2002 WIPO/Univentio
File 348:EUROPEAN PATENTS 1978-2002/Nov W02
         (c) 2002 European Patent Office
```

00867354   **Image available**
SYSTEM FOR CARD ACTIVITY-BASED MORTGAGE CREDITING
SYSTEME DE PRETS HYPOTHECAIRES DEPENDANT DES OPERATIONS DE CARTE DE CREDIT
Patent Applicant/Inventor:
   CARRAGHER Philip, 904 Lookout Court, Windsor, CO 80550, US, US
      (Residence), US (Nationality)
   WEBSTER Steven Earl, 269 Newfound Harbor Drive, Merrit Island, FL 32952,
      US, US (Residence), US (Nationality)
Legal Representative:
   TRZYNA Peter K (agent), P.O. Box 7131, Chicago, IL 60680-7131, US,
Patent and Priority Information (Country, Number, Date):
   Patent: WO 200201479 A1 20020103 (WO 0201479)
   Application: WO 2000US35341 20001222   (PCT/WO US0035341)
   Priority Application: US 2000604696 20000626; US 2000669196 20000925
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ
   DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
   LC LK LR LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI
   SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
   (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
   (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
   (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
   (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 23099

Fulltext Availability:
   Claims

Claim
... of need for Gateway products can motivate the consumer to switch
   cards. 1 0 The **Salomon** Smith Barney MasterCard FMA Card awareis one
   point for each dollar spent. The points are...one with a higher perceived
   value. Another program rewards the consumer with U.S. Savings **Bonds** .
   This card markets to consumers wanting to save for college. Points
   accumulate at the rate...

...for every 2500 points the primary cardholder gets a $25 Series EE U.S.
   Savings **Bond** . One
   5
   advantage of using the **bonds** for college education is that the eamings
   may be exempt from not only state and...
...federal taxes as weli. The shortcomings here are that the rewards are
   limited to savings **bonds** , and even though the **bonds** are targeted for
   college expenses, there are instances that may lead to wastefuiness, real
   and...

...for any purpose, even wasteful expenditures. Second, the points, prior
   to the issuance of the **bond** , do not earn interest, depriving the
   consumer of potential earnings. Lastly, the **bonds** can only be redeemed
   after six months of the issue date, and even though they...

...the consumer may have a better use for the funds. Another shortcoming is
   that the **bonds** can only be issued to the primary cardholder, and the
   federal tax break only applies...

...and only for the cardholder or the cardholder's spouse or any dependent,
   and the **bond** must be redeemed in the same calendar year that the
   tuition and fees are paid...

...have a need for secondary education for themselves or their immediate
   family;
   and because the **bonds** reach maturity in 18 years,
   0 the fui] value of the **bonds** may not be realized when they are needed
   or they may never be needed at...

...the appearance of wastefulness. Finally, a family may have a child, and
participate in this **bond** reward program for four or five years before
assuming that any more **bonds** will not have the value desired. Any
wastefulness, perceived or otherwise, will motivate the consumer...

4/3,K/2   **(Item 2 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.

00757134   **Image available**
**METHOD FOR ILLUSTRATING REPLACEMENT OF A BENEFIT PLAN NOT VIABLE IN THE
    JURIDICTION**
**PROCEDE ILLUSTRANT LE REMPLACEMENT D'UN PROGRAMME DE PREVOYANCE NON VALABLE
    AU LIEU DE JURIDICTION**
Patent Applicant/Inventor:
  PARSONS David, 12155 Wexford Overlook, Roswell, GA 30075, US, US
    (Residence), US (Nationality)
Legal Representative:
  TRZYNA Peter K, P.O. Box 7131, Chicago, IL 60680-7131, US
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200070522 A1 20001123 (WO 0070522)
  Application: WO 2000US13528 20000516 (PCT/WO US0013528)
  Priority Application: US 99313164 19990517
Designated States: CA SG
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Filing Language: English
Fulltext Word Count: 38279

Fulltext Availability:
  Detailed Description

Detailed Description
...   choose from a selection of investment vehicles or more likely, a
  selection of investment performance **indices** . The performance of the
  investments selected will determine the growth of the participants'
  benefit liabilities...

...associated with funding the plan. For example, the participant may
  select the S&P 500 **Index** Fund and a **Salomon** Government **Bond** **Index**
  for his/her investment 0 selections, but no assets will actually be
  transferred into funds simulating those **indices** . The plan sponsor has
  the responsibility for investing the contributions made into the plan to
  ...

4/3,K/3   **(Item 3 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT
(c) 2002 WIPO/Univentio. All rts. reserv.

00739246   **Image available**
METHOD AND APPARATUS FOR ASSET MANAGEMENT
PROCEDE ET APPAREIL DE GESTION D'AVOIRS
Patent Applicant/Assignee:
  SELIGMAN ADVISORS INC, 100 Park Avenue, New York, NY 10017, US, US
    (Residence), US (Nationality)
Inventor(s):
  HODGDON Stephen J, 35 West Brother Drive, Greenwich, CT 06830, US
  KADLEC Charles W, 8 Woodcroft Road, Summit, NJ 07901, US
Legal Representative:
  PEZZANO Tony V, Morgan & Finnegan, L.L.P., 345 Park Avenue, New York, NY
    10154, US
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200052612 A1 20000908 (WO 0052612)
  Application: WO 99US9296 19990428 (PCT/WO US9909296)
  Priority Application: US 99259770 19990301
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE

ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW SD SL SZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 15157

Fulltext Availability:
  Detailed Description

Detailed Description
... World
  Indices/Standard & Poor's
  (FTAWI/S&P) World ex. U.S.

  Medium-Small Cap **Index** ; 1970
  1985: Estimated as the difference
  between the MSCI EAFE **Index**
  and the S&P 500, added to the
  lbbotson Small Stock **Index** ; 1950
  1969: Estimated as the lbbotson
  Small Stock **Index**
  International Large-Company Stocks: 1970-1997: Morgan Stanley Capital
  International
  (MCSI) Europe Australia and Far East
  (EAFE) **Index** ;
  1950-1969: Estimated as the Standard & Poor's
  500 Composite Stock Price **Index**
  US Corporate **Bonds** : **Salomon** Brothers Long-Term High Grade Corporate
  Bond   **Index** US Government **Bonds** : 1950-1997: lbbotson "One **Bond** "
  Portfolio. To the greatest extent
  possible, each year, a one- **bond** portfolio with a term
  of approximately 20 years and a reasonably current
  coupon, and whose...
?

```
Set      Items    Description
S1           5    AU=(KLAFFKY, T? OR KLAFFKY T? OR HAMAKIOTES C? OR HAMAKIOT-
                  ES, C?)
S2     3539379    INDEX? OR BOND? ? OR SALOMON
S3           3    S1 AND S2
?show file
File    9:Business & Industry(R)  Jul/1994-2002/Nov 15
         (c) 2002 Resp. DB Svcs.
File   15:ABI/Inform(R) 1971-2002/Nov 16
         (c) 2002 ProQuest Info&Learning
File   16:Gale Group PROMT(R) 1990-2002/Nov 18
         (c) 2002 The Gale Group
File  148:Gale Group Trade & Industry DB 1976-2002/Nov 18
         (c)2002 The Gale Group
File  160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
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         (c) 2002 The Gale Group
File  621:Gale Group New Prod.Annou.(R) 1985-2002/Nov 14
         (c) 2002 The Gale Group
File  636:Gale Group Newsletter DB(TM) 1987-2002/Nov 18
         (c) 2002 The Gale Group
File   20:Dialog Global Reporter 1997-2002/Nov 18
         (c) 2002 The Dialog Corp.
File  476:Financial Times Fulltext 1982-2002/Nov 18
         (c) 2002 Financial Times Ltd
File  610:Business Wire 1999-2002/Nov 15
         (c) 2002 Business Wire.
File  613:PR Newswire 1999-2002/Nov 18
         (c) 2002 PR Newswire Association Inc
File  624:McGraw-Hill Publications 1985-2002/Nov 01
         (c) 2002 McGraw-Hill Co. Inc
File  634:San Jose Mercury  Jun 1985-2002/Nov 15
         (c) 2002 San Jose Mercury News
File  810:Business Wire 1986-1999/Feb 28
         (c) 1999 Business Wire
File  813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File  625:American Banker Publications 1981-2002/Nov 15
         (c) 2002 American Banker
File  268:Banking Info Source 1981-2002/Nov W2
         (c) 2002 ProQuest Info&Learning
File  626:Bond Buyer Full Text 1981-2002/Nov 15
         (c) 2002 Bond Buyer
File  267:Finance & Banking Newsletters 2002/Nov 11
         (c) 2002 The Dialog Corp.
```

3/9/1   (Item 1 from file: 15)
DIALOG(R)File   15:ABI/Inform(R)
(c) 2002 ProQuest Info&Learning. All rts. reserv.

00222965 84-01526
Dedication: Making the Perfect Match
Leibowitz, Martin L.;   **Klaffky, Thomas E.** ; Mandel, Steven; Weinberger,
Alfred
Pensions & Investment Age   v11n24   PP: 30   Nov 28, 1983   ISSN: 0273-5466
JRNL CODE: PNI
DOC TYPE: Journal article   LANGUAGE: English   LENGTH: 1 Pages
SPECIAL FEATURE: Graph

ABSTRACT: In recent years, the applications of various forms of cash
matching or dedicated portfolios have grown to become important in meeting
payout schedules and lowering the reserves set aside for them. Great
savings may also be realized when market interest rates are materially
higher than the pro forma or actuarial discount rate used to value the
liabilities. Immunization - whereby a portfolio is designed to immunize a
liabilities schedule across a certain range of interest rate movements -
has been used to solve the same problem. Horizon matching is a blend of the
best of cash matching and immunization. With this technique, the liability
stream is divided into 2 parts. The first gives full cash matching of the
liabilities occurring up to and including the specified horizon date.
Beyond this date, duration matching based on the immunization principle is
applied. While the concept is basically simple, the key to effective
implementation of horizon matching is the construction of an integrated
portfolio that meets numerous special and complex mathematical conditions.

DESCRIPTORS: Techniques; Portfolio management; Immunization; Cash;   **Bond**
   portfolios
CLASSIFICATION CODES: 3400 (CN=Investment analysis)

 3/9/2   (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2002 The Gale Group. All rts. reserv.

01697759   SUPPLIER NUMBER: 02645792
Asset-liability management using clipped securities.
 Klaffky, Thomas E.
American Banker, v148, p18(2)
Feb 23, 1983
ISSN: 0002-7561   LANGUAGE: ENGLISH   RECORD TYPE: CITATION
CAPTIONS: Sample liability schedule. (graph); Sample liability schedule
matched with conventional **bond** portfolio. (graph); Sample liability
schedule matched with "stripped" securities. (graph)

 SPECIAL FEATURES: illustration; graph
 INDUSTRY CODES/NAMES: BANK   Banking, Finance and Accounting
 DESCRIPTORS: cash management--Analysis; Finance--Planning; Securities--
  Management
 SIC CODES: 6000 DEPOSITORY INSTITUTIONS
 FILE SEGMENT: TI File 148

 3/9/3   (Item 1 from file: 268)
DIALOG(R)File 268:Banking Info Source
(c) 2002 ProQuest Info&Learning. All rts. reserv. '

00220314
Asset/liability management using clipped securities
 Klaffky, Thomas E.
American Banker, p18, 28, Feb 23, 1983
JOURNAL CODE: AB LANGUAGE: English RECORD TYPE: Abstract
ARTICLE REFERENCE NUMBER:

ABSTRACT: Stripped securities are a new innovation for the portfolio

manager in dealing with asset/liability management. They are free from
"reinvestment risk, call risk, and quality risk" and offer maturities of up
to 25 years. While the conventional **bond** portfolio matches liabilities
with **bond** inflows consisting of coupon and principal, management with
zero-coupon **bonds** may be just as efficient and less costly in the current
interest rate environment. In management of active-lives and product
liability, zero-coupon **bonds** eliminate reinvestment risk without ongoing
portfolio management.
DESCRIPTORS: **Bonds** ; Asset Liability Management; Investments
?t 3/7/all

```
Set      Items    Description
S1           5    SALOMON
S2         563    BRADY
S3      147374    INDEX
S4           3    S2 AND S3
?show files
File 347:JAPIO Oct 1976-2002/Jul(Updated 021104)
        (c) 2002 JPO & JAPIO
File 350:Derwent WPIX 1963-2002/UD,UM &UP=200273
        (c) 2002  Thomson Derwent
```

014213556
WPI Acc No: 2002-034254/200204
XRAM Acc No: C02-009534
XRPX Acc No: N02-026399
**Diagnosing Alzheimer's disease by comparing first, second raw percentage
of cells responding to first, second compounds respectively, to provide
ratio index which is compared to predetermined discriminating value**
Patent Assignee: NEUROLOGIC INC.(NEUR-N)
Inventor: ALKON D L; BANK B; BHAGAVAN S; ETCHEBERRIGARAY R
Number of Countries: 094 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200177686	A2	20011018	WO 2001US11060	A	20010405	200204	B
AU 200155234	A	20011023	AU 200155234	A	20010405	200213	

Priority Applications (No Type Date): US 2000194626 P 20000405
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200177686	A2	E	40	G01N-033/68	

   Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
   CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
   KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
   RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

Patent No	Kind			Main IPC	Filing Notes
AU 200155234	A			G01N-033/68	Based on patent WO 200177686

Abstract (Basic): WO 200177686 A2
     NOVELTY - Diagnosing Alzheimer's disease (AD) in patient using
integrated scoring system by challenging first, second set of cells of
patients with first, second compound to elicit first, second response
(FSR), respectively, measuring FSR and calculating first, second raw
percent of responding cells; calculating ratio **index** (RI),
determining presence/absence of AD when RI is greater or less than a
predetermined value.
     DETAILED DESCRIPTION - Diagnosing (M1) the presence or absence of
AD in a patient comprising an integrated scoring system involves
determining a first value comprising challenging one set of cells from
a patient with a first compound to elicit a first response, measuring
the first response and calculating a first raw percent of responding
cells; determining a second value comprising challenging another set of
cells from same patient with a second compound to elicit a second
response, measuring the response and calculating a second raw percent
of responding cells, one of the first and second responses being
increased and the other decreased in AD cells as compared to non-AD
cells; calculating the RI by dividing the increased response value by
the decreased response value; determining the presence of AD when the
RI value is below a predetermined value X; and determining the absence
of AD when the RI value is equal to X or higher.
     An INDEPENDENT CLAIM is also included for a computer software
program for performing (M2) the diagnosis of AD by:
     (a) obtaining data comprising first raw percentage of cells of the
individual having functional potassium channels, and second raw
percentage of cells of the individual responding when contacted by
second modulator of intracellular calcium release;
     (b) calculating RI by either
     (i) dividing first raw percentage by the second raw percentage to
provide a RI; or
     (ii) dividing the second raw percentage;
     (c) comparing the RI to a predetermined discriminating value and
for calculation,
     (i) scoring the individual as AD negative if the RI exceeds the
discriminating value, and as AD positive if the RI does not exceed the
discriminating value, or for calculation; and
     (ii) scoring the individual as AD positive if the RI exceeds the

discriminating value, and as AD negative if the RI does not exceed the discriminating value.

USE - Diagnosing the presence or absence of AD in a patient using an integrated scoring system (claimed).

ADVANTAGE - The method enables diagnosis of individuals as AD positive even when they lack clinical manifestations of AD. The method also identifies the presence of AD in cells from a pre-symptomatic individual. The negative AD diagnosis is not affected by the presence of non-Alzheimer's neurodegenerative conditions. The scoring has sensitivity, specificity and positive predictive value sufficient to provide clinical utility for a particular given population. The method provides greater than 75% (preferably, 95%) sensitivity, specificity, and/or positive predictive value for particular population. The diagnosis detects molecular alterations associated with AD prior to the onset of clinical cognitive or plaque formation symptoms (claimed). The method rapidly and clearly distinguishes between AD patients, normal aged people, and people suffering from other non-Alzheimer's disease neurodegenerative diseases, such as Parkinson's, Huntington's chorea, Wernicke-Korsakoff or schizophrenia. The method provides a simple single-value diagnostic evaluation for AD. The method avoids the need to normalize results for separate assays of calcium signaling, permitting use of raw data, which is advantageous in the clinical setting. The methods for diagnosing AD greatly improve the present clinical diagnostic process for AD. The RI is advantageous because it provides a more generally applicable tests, utilizes raw data as opposed to manipulated data, and it provides a more accurate, precise and consistent diagnosis and predictability of AD.

pp; 40 DwgNo 0/8

Title Terms: DIAGNOSE; DISEASE; COMPARE; FIRST; SECOND; RAW; PERCENTAGE; CELL; RESPOND; FIRST; SECOND; COMPOUND; RESPECTIVE; RATIO; **INDEX** ; COMPARE; PREDETERMINED; DISCRIMINATE; VALUE
Derwent Class: B04; D16; S03; T01
International Patent Class (Main): G01N-033/68
International Patent Class (Additional): G01N-033/566; G06F-019/00
File Segment: CPI; EPI

4/5/2   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013912747
WPI Acc No: 2001-396960/200142
XRAM Acc No: C01-120693
Reducing airway hyperresponsiveness or airflow limitation associated with respiratory disease by administering TGF beta-regulating agent
Patent Assignee: NAT JEWISH MEDICAL & RES CENT (NAJE-N)
Inventor: IRVIN C G
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6248723	B1	20010619	US 9763605	A	19970610	200142	B
			US 9895877	A	19980610		

Priority Applications (No Type Date): US 9763605 P 19970610; US 9895877 A 19980610
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6248723	B1		30	A61K-048/00	Provisional application US 9763605

Abstract (Basic): US 6248723 B1
NOVELTY - Reducing airway hyperresponsiveness associated with a respiratory disease involving an inflammatory response, comprises administering to the lungs a TGFbeta-regulating agent selected from:
(a) an isolated TGFbeta1 protein;
(b) an isolated nucleic acid molecule encoding a TGFbeta1 protein; or
(c) a TGFbeta1 receptor-specific antibody that stimulates the activity of the receptor.

DETAILED DESCRIPTION - Reducing airway hyperresponsiveness and/or airflow limitation associated with a respiratory disease involving an inflammatory response comprises administering to the lungs a formulation comprising a TGFbeta-regulating agent selected from;

(a) an isolated TGFbeta1 protein;

(b) an isolated nucleic acid molecule encoding a TGFbeta1 protein, the nucleic acid molecule being operatively linked to a transcription control sequence; or

(c) a TGFbeta1 receptor-specific antibody that stimulates the activity of the receptor.

INDEPENDENT CLAIMS are also included for the following:

(1) prescribing treatment for airway hyperresponsiveness and/or airflow limitation associated with a respiratory disease involving an inflammatory response comprising (1) administering an agent (a)-(c) as above;

(2) measuring the change in lung function in response to a provoking agent to determine if the TGFbeta3-regulating agent modulates airway hypersensitiveness;

(3) prescribing a therapy comprising administration of TGFbeta based on changes in lung function; and

(4) a formulation for protecting a mammal from airway hyperresponsiveness and/or airflow limitation associated with a respiratory disease involving an inflammation comprising (1) an antiinflammatory agent for reducing eosinophilic inflammation; and (2) a TGFbeta-regulating agent as in (a)-(c) above.

ACTIVITY - Respiratory-Gen.; antiinflammatory; antiasthmatic; antiallergic; fungicide.

Mice were immunized and then challenged with 8 days of aerosol ovalbumin. Treatment with pan-specific antibody to TGFbeta during the first focused days of antigen exposure blocked the alterations in responsiveness to antigen even 30 days after treatment (i.e. chronic effects).

MECHANISM OF ACTION - TGF-Antagonist-Beta.

USE - As TGFbeta-regulating agents for reducing airway hyperresponsiveness and/or airflow limitation associated with a respiratory disease involving an inflammatory response, for decreasing methacholine responsiveness, airways fibroproliferation or lung inflammation useful for treating and preventing asthma, allergic bronchopulmonary aspergillosis, hypersensitivity pneumonia, eosinphihc pneumonia, allergic bronchitis bronchiectasis, hypersensitivity pneumotitis, occupational asthma, reactive airway disease syndrome, hypereosinophilic syndrome, rhinitis, sinusitis and parasitic lung disease.

pp; 30 DwgNo 0/11

Title Terms: REDUCE; AIRWAY; AIRFLOW; LIMIT; ASSOCIATE; RESPIRATION; DISEASE; ADMINISTER; BETA; REGULATE; AGENT

Derwent Class: B04; D16

International Patent Class (Main): A61K-048/00

International Patent Class (Additional): A61K-038/00; A61K-039/395; C07K-014/00; C12N-015/11

File Segment: CPI

4/5/3   (Item 3 from file: 350)

013400164   **Image available**
WPI Acc No: 2000-572102/200053
XRAM Acc No: C00-170577

Identifying genes used for identifying drugs for the prevention and/or therapy of diabetic nephropathy involves culturing mesangial cells in the presence of glucose which induces differential expression of susceptible genes

Patent Assignee: HIBERGEN LTD (HIBE-N); UNIV COLLEGE DUBLIN (UYDU-N)

Inventor: BRADY H R; GODSON C M; MARTIN F M; MCMAHON R A; MURPHY M A

Number of Countries: 091 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week

Patent Details:

Patent No   Kind Lan Pg   Main IPC   Filing Notes

WO 200050637 A1 E 86 C12Q-001/68
    Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
    CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
    KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
    SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
    Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
    IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
AU 200029364 A   C12Q-001/68   Based on patent WO 200050637
EP 1157130   A1 E   C12Q-001/68   Based on patent WO 200050637
    Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
    LI LT LU LV MC MK NL PT RO SE SI
NO 200103873 A   C12Q-000/00
CN 1343259   A   C12Q-001/68

Abstract (Basic): WO 200050637 A1
        NOVELTY - Identifying a gene (I) having a role in the presentation
    of diabetic nephropathy (DN) involves culturing mesangial cells in a
    medium in the presence of a glucose to induce differential expression
    of a gene and identifying the gene induced.
        DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
    following:
        (1) use of (I) as a diagnostic marker for the progression and
    presentation of DN;
        (2) use of (I) as an **index** of disease activity and the rate of
    progression of DN;
        (3) use of (I) as a basis for identifying drugs for use in the
    prevention and/or therapy of DN; and
        (4) a gene containing a sequence of 598, 761, 393, 273 or 309
    nucleotides, given in the specification.
        USE - The gene identified by the novel method is useful as a
    diagnostic marker for the progression and presentation of DN, as an
    index of disease activity and the rate of progression of DN, and as a
    basis for identifying drugs for use in the prevention and/or therapy of
    DN (claimed). The gene identified represents novel therapeutic targets
    for drug development. It is useful as a clinical **index** of progressive
    renal sclerosis and scarring, as a guide to the response of progressive
    diabetic nephropathy to therapy and also as a marker of diabetes
    prevention or development. It is also useful to generate mouse
    knock-out (k/o) models for genes identified and to determine if onset
    of diabetic nephropathy is inhibited, reduced or delayed.
        DESCRIPTION OF DRAWING(S) - The figure shows the relative amount of
    connective tissue growth factor mRNA as estimated by Phosphor Imager
    (RTM) quantification.
        pp; 86 DwgNo 2/24

Title Terms: IDENTIFY; GENE; IDENTIFY; DRUG; PREVENT; THERAPEUTIC; DIABETES
 ; NEPHROPATHY; CULTURE; CELL; PRESENCE; GLUCOSE; INDUCE; DIFFERENTIAL;
  EXPRESS; SUSCEPTIBILITY; GENE
Derwent Class: B04; D16
International Patent Class (Main): C12Q-000/00; C12Q-001/68
File Segment: CPI

DIALOG(R)File 350:Derwent WPIX
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013656288   **Image available**
WPI Acc No: 2001-140500/200115
XRPX Acc No: N01-102500
  **Method of processing data stream made up of plurality of cells has memory
  block temporarily allocated from number of available memory blocks to
  input by memory controller**
Patent Assignee: NDS LTD (NDSN-N); TANDBERG TELEVISION ASA (TAND-N)
Inventor: CARTWRIGHT C
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
GB 2351210   A   20001220 GB 999893   A   19990430 200115 B

Priority Applications (No Type Date): GB 999893 A 19990430
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
GB 2351210   A   16 H03M-013/27

Abstract (Basic): GB 2351210 A
     NOVELTY - A memory block (63) is temporarily allocated from a
  number of available memory blocks (63) to an input by a memory
  controller (61). Data from each input is written into a respective
  allocated memory block. Data is written from a full memory block to
  reproduce one of the number of inputs.
     DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for:
     (a) an apparatus for processing a data stream made up of several
  cells
     USE - In a digital broadcasting for reception of multiple digital
  transport streams.
     ADVANTAGE - Provides a system for de-interleaving multiple
  transport streams in an efficient manner.
     DESCRIPTION OF DRAWING(S) - The drawing shows an embodiment of the
  present invention.
     Reed- **Salomon** decoder (46)
     memory controller (61)
     memory blocks (63)
     pp; 16 DwgNo 5/6
Title Terms: METHOD; PROCESS; DATA; STREAM; MADE; UP; PLURAL; CELL; MEMORY;
  BLOCK; TEMPORARY; ALLOCATE; NUMBER; AVAILABLE; MEMORY; BLOCK; INPUT;
  MEMORY; CONTROL
Derwent Class: U21; W01
International Patent Class (Main): H03M-013/27
International Patent Class (Additional): H04L-012/56
File Segment: EPI

DIALOG(R)File 350:Derwent WPIX
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010221750   **Image available**
WPI Acc No: 1995-123005/199516
XRPX Acc No: N95-097263
  **Concentrated coded vestigial sideband modulation for HDTV - uses Reed-
  Salomon coder followed by trellis coder using N- dimensional trellis
  coder where N is larger than one**
Patent Assignee: AMERICAN TELEPHONE & TELEGRAPH CO (AMTT); AT & T CORP
  (AMTT)
Inventor: WEI L
Number of Countries: 008 Number of Patents: 006
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
US 5398073   A   19950314 US 94226606   A   19940412 199516 B
EP 677966   A2   19951018 EP 95302241   A   19950404 199546
JP 7298222   A   19951110 JP 9586692   A   19950412 199603

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CA 2144794      A   19951013  CA 2144794      A   19950316  199607
SG 24119        A1  19960210  SG 95223        A   19950406  199632
CA 2144794      C   19990615  CA 2144794      A   19950316  199942
```

Priority Applications (No Type Date): US 94226606 A 19940412
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
US 5398073   A   15 H04N-007/04
EP 677966   A2 E 16 H04N-007/24
   Designated States (Regional): DE FR GB NL
JP 7298222   A   13 H04N-007/015
CA 2144794   C E   H04N-007/26
CA 2144794   A   H04N-007/26
SG 24119   A1   H04N-007/04

Abstract (Basic): US 5398073 A
        The method includes steps of Reed-Solomon encoding a digital
    signal, then generating a sequence of N-dimensional symbols as a
    function of the Reed-Solomon-encoded signal using an N-dimensional
    trellis code. N larger than 1, represents each of the symbols as a
    sequence of N one-dimensional signal points of a one-dimensional M-ary
    transmitter constellation.
        The method also entails generating a vestigial sideband modulation
    signal which represents the resulting sequence of signal point
    representations, and applying the vestigial sideband modulation signal
    to the television channel. The television channel is a cable channel
    and wherein M=16.
        USE/ADVANTAGE - For standardisation of HDTV. Improved performance.
        Dwg.1/13
Title Terms: CONCENTRATE; CODE; VESTIGIAL; SIDEBAND; MODULATE; HDTV; REED;
   CODE; FOLLOW; TRELLIS; CODE; N; DIMENSION; TRELLIS; CODE; N; LARGER; ONE
Derwent Class: W02
International Patent Class (Main): H04N-007/015; H04N-007/04; H04N-007/24;
   H04N-007/26
International Patent Class (Additional): H03M-007/14; H03M-013/12;
   H04B-001/68; H04L-027/02
File Segment: EPI

 1/5/3   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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008030098   **Image available**
WPI Acc No: 1989-295210/198941
XRPX Acc No: N89-225110
   Communication system with concatenated coding error correction - has
   differential decoder, Reed-solomon stage, viterbi decoder and parallel to
   series conveter
Patent Assignee: MITSUBISHI DENKI KK (MITQ)
Inventor: KOJIMA T; MIYAKE M
Number of Countries: 004 Number of Patents: 006
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
GB 2216753   A   19891011   GB 894936   A   19890303   198941 B
JP 1225227   A   19890908   JP 8851167   A   19880303   198942
FR 2628587   A   19890915   198944
JP 2053330   A   19900222   JP 88205551   A   19880818   199014
US 5117427   A   19920526   US 89318152   A   19890302   199224
GB 2216753   B   19921104   GB 894936   A   19890303   199245

Priority Applications (No Type Date): JP 88205551 A 19880818; JP 8851167 A
    19880303
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
GB 2216753   A   47
US 5117427   A   22 G06F-011/10
GB 2216753   B   H03M-013/00
```

Abstract (Basic): GB 2216753 A
    Differential coding and decoding are performed in a coder (4) and a
differential decoder. The 2-channel output (9) obtained by a
convolutional coding procedure is parallel-to-serial converted and then
subjected to synonym or framing information insertion before being
transmitted using binary phase shift keying. A reed- **salomon** (RS)
stage is provided (2).
    On the receiving side, the received data is supplied after
detection and removal of synonym or framing to Viterbi decoder and
thence to the decoder followed by RS decoding.
    ADVANTAGE - Minimises power requirements.
    1/17
Title Terms: COMMUNICATE; SYSTEM; CONCATENATED; CODE; ERROR; CORRECT;
  DIFFERENTIAL; DECODE; REED; STAGE; DECODE; PARALLEL; SERIES
Derwent Class: U21; W01
International Patent Class (Main): G06F-011/10
International Patent Class (Additional): H03M-013/12; H03M-013/22;
  H04B-007/00; H04B-014/06; H04L-001/00; H04L-007/00; H04L-027/18
File Segment: EPI


**1/5/4      (Item 4 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
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007091849
WPI Acc No: 1987-091846/198713
XRPX Acc No: N87-068697
  **Combined correction code decoder - has corresp. inputs of error presence
  signaliser connected to single error subscriber commutator**
Patent Assignee: ANOKHIN A V (ANOK-I)
Inventor: ANOKHIOH A V; BOYARINOV I M; DAVYDOV A A
Number of Countries: 001  Number of Patents: 001
Patent Family:
Patent No      Kind   Date      Applicat No     Kind   Date      Week
SU 1229969     A      19860507  SU 3589594       A      19830504  198713  B

Priority Applications (No Type Date): SU 3589594 A 19830504
Patent Details:
Patent No  Kind Lan Pg   Main IPC    Filing Notes
SU 1229969     A     15

Abstract (Basic): SU 1229969 A
    For faster decoding the device now includes single error locator
communicator (6) first error presence signalling unit (7), Reed-
**Salomon** code error (RSCE) commutation unit (8) parity check errors
calculator (9) decoders (10-12) (RSCE) commutator (13), shifted bits
corrector (14), shifted bits error value shaper (15) and first internal
data bits former (16).
    The calculator (9) calculates the parity check errors
simultaneously with the (RSCE) calculator (5) and the (RSCE)
commutation unit (8). Third and second decoders (12,11) decode four
bits values forming 16 bits words. The first decoder (10) forms 8 bits
word corresp. data orders of NR code.
    USE - In computer engineering and communication for correction
detection of errors in 64-bit data blocks. Bul. 17/7.5.86 (15pp
Dwg.No.1/5
Title Terms: COMBINATION; CORRECT; CODE; DECODE; CORRESPOND; INPUT; ERROR;
  PRESENCE; CONNECT; SINGLE; ERROR; SUBSCRIBER; COMMUTATE
Derwent Class: U21
International Patent Class (Additional): H03M-013/02
File Segment: EPI


**1/5/5      (Item 5 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
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004556933

**Integrated navigation system for land, sea and air traffic - combines functions of identification, navigation, traffic control, anti-collision and communications equipment**
Patent Assignee: THOMSON CSF (CSFC )
Inventor: MILOSEVIC L
Number of Countries: 006   Number of Patents: 007
Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week | |
|-----------|------|----------|-------------|------|----------|--------|---|
| NL 8104417 | A | 19860203 | NL 814417 | A | 19810925 | 198609 | B |
| GB 2164822 | A | 19860326 | GB 8128609 | A | 19810922 | 198613 | |
| FR 2571151 | A | 19860404 | | | | 198620 | |
| DE 3138318 | A | 19860626 | DE 3138318 | ·A | 19810925 | 198627 | |
| GB 2164822 | B | 19860820 | | | | 198634 | |
| BE 890478 | A | 19860918 | BE 890478 | A | 19860918 | 198640 | |
| IT 1144867 | B | 19861029 | | | | 198833 | |

Priority Applications (No Type Date): FR 8020713 A 19800926
Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|-----|----------|--------------|
| NL 8104417 | A | | 24 | | |

Abstract (Basic): NL 8104417 A
      The meassage used in the system has three main parts: a preliminary word (1) followed by a fine synchronisation signal (3) and the multi-word message signal (2). The preliminary word (1) consists of modulated pulses with very wide frequency bandwidths, spread over a broad spectrum. The preliminary word has coarse synchronisation.
      The text pulses which follow the fine synchronisation signal (3) are also spread over a wide spectrum, but are differently modulated and have narrow bandwidths. The text is formed from a preface word in 16/7 Reed **Salomon** code, while the message words are in 31/15 code.
      ADVANTAGE - Requires less receivers than previous systems of its type and is unaffected by low level selective interference
Title Terms: INTEGRATE; NAVIGATION; SYSTEM; LAND; SEA; AIR; TRAFFIC; COMBINATION; FUNCTION; IDENTIFY; NAVIGATION; TRAFFIC; CONTROL; ANTI; COLLIDE; COMMUNICATE; EQUIPMENT
Derwent Class: W01; W02; W06
International Patent Class (Additional): G01S-013/76; G08G-000/00; H04B-014/02; H04J-013/00; H04K-001/10; H04K-003/00; H04L-009/00
File Segment: EPI

```
Set       Items    Description
S1          4    AU=(KLAFFKY, T? OR KLAFFKY T? OR HAMAKIOTES C? OR HAMAKIOT-
                 ES, C?)
?show files
File   2:INSPEC 1969-2002/Nov W3
         (c) 2002 Institution of Electrical Engineers
File  35:Dissertation Abs Online 1861-2002/Oct
         (c) 2002 ProQuest Info&Learning
File  65:Inside Conferences 1993-2002/Nov W2
         (c) 2002 BLDSC all rts. reserv.
File  99:Wilson Appl. Sci & Tech Abs 1983-2002/Oct
         (c) 2002 The HW Wilson Co.
File 233:Internet & Personal Comp. Abs. 1981-2002/Oct
         (c) 2002 Info. Today Inc.
File 474:New York Times Abs 1969-2002/Nov 16
         (c) 2002 The New York Times
File 475:Wall Street Journal Abs 1973-2002/Nov 15
         (c) 2002 The New York Times
File 583:Gale Group Globalbase(TM) 1986-2002/Nov 16
         (c) 2002 The Gale Group
File 139:EconLit 1969-2002/Nov
         (c) 2002 American Economic Association
```

1/5/1   (Item 1 from file: 2)

03595585   INSPEC Abstract Number: A90053612
   Title: Periodic flows through curved tubes: the effect of the frequency parameter
   Author(s): **Hamakiotes, C.C.** ; Berger, S.A.
   Author Affiliation: Dept. of Mech. Eng., California Univ., Berkeley, CA, USA
   Journal: Journal of Fluid Mechanics   vol.210   p.353-70
   Publication Date: Jan. 1990 Country of Publication: UK
   CODEN: JFLSA7 ISSN: 0022-1120
   Language: English   Document Type: Journal Paper (JP)
   Treatment: Theoretical (T)
   Abstract: The authors consider a sinusoidally varying volumetric flow rate in a curved pipe of arbitrary curvature ratio, delta , and investigate the effect of frequency parameter alpha , and Reynolds number Re/sub m/ on the flow. Specifically, they report on the flow-field development for the range 7.5<or= alpha <or=25, and 50<or=Re/sub m/<or=450. The results, obtained by numerical integration of the full Navier-Stokes equations, reveal a number of characteristics of the flow previously unreported. (30 Refs)
   Subfile: A
   Descriptors: integration; Navier-Stokes equations; numerical analysis; pipe flow
   Identifiers: curved tubes; frequency parameter; volumetric flow rate; curved pipe; Reynolds number; flow-field development; numerical integration ; Navier-Stokes equations
   Class Codes: A4760 (Flows in ducts, channels, and conduits); A4710 (General theory); A0260 (Numerical approximation and analysis)

 1/5/2   (Item 2 from file: 2)

03387259   INSPEC Abstract Number: A89070323
   Title: Period tripling in periodic flows through curved pipes
   Author(s): **Hamakiotes, C.C.** ; Berger, S.A.
   Author Affiliation: Dept. of Mech. Eng., California Univ., Berkeley, CA, USA
   Journal: Physical Review Letters   vol.62, no.11   p.1270-3
   Publication Date: 13 March 1989 Country of Publication: USA
   CODEN: PRLTAO ISSN: 0031-9007
   Language: English   Document Type: Journal Paper (JP)
   Treatment: Theoretical (T)
   Abstract: The authors study numerically the laminar fully developed region of period flows through curved pipes. Under certain conditions the results exhibit period tripling. This striking feature is reminiscent of one of the possible routes to chaos that typical nonlinear dynamical systems take. (16 Refs)
   Subfile: A
   Descriptors: chaos; flow instability; laminar flow; numerical analysis; pipe flow; pulsatile flow
   Identifiers: numerical study; periodic flows; curved pipes; laminar fully developed region; period tripling; chaos; nonlinear dynamical systems
   Class Codes: A4760 (Flows in ducts, channels, and conduits); A0545 (Theory and models of chaotic systems); A0260 (Numerical approximation and analysis); A4715F (Stability of laminar flows); A4720 (Hydrodynamic stability and instability)

 1/5/3   (Item 3 from file: 2)

03311434   INSPEC Abstract Number: A89029427
   Title: Fully developed pulsatile flow in a curved pipe

Author(s): **Hamakiotes, C.C.** ; Berger, S.A.
Author Affiliation: Dept. of Mech. Eng., California Univ., Berkeley, CA, USA
Abstract: The fully developed region of periodic flows through curved pipes of circular cross-section and arbitrary curvature has been simulated numerically. The volumetric flow rate, prescribed by a cosine function, remains positive throughout the entire cycle. Such flows are characterized by three parameters: the frequency parameter alpha , the amplitude ratio gamma and the mean Dean number kappa /sub m/. The authors use the Projection Method to solve the finite-difference approximation of the Navier-Stokes equations in their primitive form. The effect of kappa /sub m/ on the flow has been extensively studied for the range 0.7559<or= kappa /sub m/<or=756 for alpha =15 and gamma =1, and the curvature ratio, delta , equal to /sup 1///sub 7/. Interactions between the Stokes layer and the interior are noted and a variety of pulsatile motions along with reversal of the axial-flow direction are revealed. The manner in which the secondary motions evolve with increasing Dean number, and how they change direction from outward to inward 'centrifuging' at the centre, is also explained. Reversal in the axial flow is observed for all values of Dean number studied and occupies a region ranging from the area immediately adjacent to the entire wall for low values of Dean number to the entire inner half of the cross-section for larger values. When reversal of the axial flow is present, the local maximum axial shear stress is found at the inner bend where the backflow region is located. (41 Refs)
  Subfile: A
  Descriptors: flow simulation; Navier-Stokes equations; pipe flow; pulsatile flow; shear flow; vortices
  Identifiers: pulsatile flow; curved pipe; fully developed region; periodic flows; circular cross-section; arbitrary curvature; volumetric flow rate; cosine function; frequency parameter; amplitude ratio; mean Dean number; Projection Method; finite-difference approximation; Navier-Stokes equations; Stokes layer; axial-flow direction; secondary motions; centrifuging; axial flow; shear stress; backflow region
  Class Codes: A4760 (Flows in ducts, channels, and conduits); A4730 (Rotational flow and vorticity)

  1/5/4   (Item 1 from file: 35)
PERIODIC FLOWS THROUGH CURVED TUBES
  Author: **HAMAKIOTES, COSTAS CHRIS**
  Degree: PH.D.
  Year: 1988
  Corporate Source/Institution: UNIVERSITY OF CALIFORNIA, BERKELEY (0028)
  CHAIR: STANLEY A. BERGER

     We study numerically the laminar fully-developed region of periodic flows through curved tubes of arbitrary curvature. We impose a sinusoidal volumetric flow rate and seek the response of the flow field to it. The volumetric flow rate has a non-zero mean and remains positive throughout the entire cycle. Such flows are characterized by three parameters; the frequency parameter α, the amplitude ratio γ and the Dean number $\kappa\sb{m}$. We use the Projection Method to solve the equations of motion in their primitive, conservative form. The effect of α and $\kappa\sb{m}$ on the flow has been studied extensively for γ = 0.98 and for the curvature ratio δ = 1/7. We considered the ranges 7.5

$\leq$ α $\leq$ 25 and 37 $<$ $\kappa\sb{m}$ $<$ 341. Some of the
principal results reveal interactions between the Stokes layer and the
interior of the cross section. The axial pressure gradient required to
sustain the flow increases with α and decreases with $\kappa\sb{m}$.
Lyne-type motion, i.e. inward 'centrifuging', occurs at lower α for
higher $\kappa\sb{m}$ and always happens during the accelerative part of
the volumetric flow. Regions of reversed axial flow are observed when the
flow rate approaches its minimum. Backflow extends further outwards along
the wall as α increases and $\kappa\sb{m}$ decreases.

For α = 15 and the range 238 $<$ $\kappa\sb{m}$ $<$ 302 the
results exhibit period tripling, that is, the velocity field varies
periodically with time over three cycles and then repeats itself over the
next three cycles. The pressure gradient, however, varies periodically over
a single cycle, like the imposed volumetric flow rate. This striking
feature is reminiscent of one of the possible roads to chaos which
non-linear dynamical systems take. Though the current state of theoretical
understanding and our present results are incomplete as far as answering
the question of the onset of choas in fluid flow through curved tubes, our
results show that unsteady fluid dynamical systems are capable of period
bifurcations which should be discernible by experiments.
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